Table -1

TECHNICAL DETAIL FOR HAVELLS 1.1 KV SINGLE CORE, AL/COPPER COND., PVC INSULATED, UN-ARMOURED CABLES

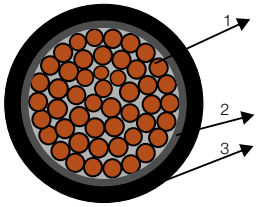
Cable Code : AYY/YY

Ref. Spec. : IS :1554Part-1

Physical Parameters

SIZE cross-sectional area (Sq MM)	Minimum No of Strand in Conductor		Nominal Thickness of Insulation) (mm)	Nominal Thickness of outer sheath (mm)	Approx. Overal Diameter (mm)	Approx. Weight of cable in kg /km	
	Al	Cu				With Al Conductor AYY	With Cooper conductor YY
4	—	1/7	1.0	1.8	8	80	105
6	1	1/7	1.0	1.8	9	100	135
10	1	6	1.0	1.8	10	120	180
16	6	6	1.0	1.8	11	160	260
25	6	6	1.2	1.8	13	210	365
35	6	6	1.2	1.8	14	250	460
50	6	6	1.4	1.8	16	300	610
70	12	12	1.4	1.8	17	400	830
95	15	15	1.6	1.8	19	500	1100
120	15	18	1.6	2.0	21	600	1350
150	15	18	1.8	2.0	23	750	1680
185	30	30	2.0	2.0	25	900	2050
240	30	34	2.2	2.0	28	1100	2600
300	30	34	2.4	2.0	30	1350	3200
400	53	53	2.6	2.2	35	1700	4200
500	53	53	3.0	2.2	38	2150	5250
630	53	53	3.4	2.4	43	2750	6650
800	53	53	3.4	2.4	48	3300	8250
1000	53	53	3.4	2.6	52	4100	10300

Cross-sectional view



1 CONDUCTOR : Material - Aluminium /Copper
*Shape : ~AL . Cond :- 6 & 10 SQMM -Solid circular, 16 sq.mm & above : Stranded compacted circular
~Copper. Cond :- 4 & 6 sq. mm-solid/ stranded non compacted circular, 10 sq. mm & above : Stranded compacted circular

2 INSULATION : PVC Type A of IS:5831 / OPTION: HR PVC (Type-C of IS-5831), Colour : Black

3 OUTER SHEATH : PVC TYPE ST-1 OF IS : 5831 '— OPTIONS : PVC Type ST-2 of IS:5831/ FR TYPE/FRLS TYPE
COLOUR OF OUTER SHEATH : BLACK . OPTIONS : any other colour as per requirement.

- Tabulated approx. net wt. of cables are only guidelines for transportation, loading & unloading purpose..
- Please ref page no 43 for normal delivery lengths & packing details.

Electrical Parameters

SIZE cross-sectional area (Sq MM)	Max. Cond. D.C. Resistance at 20°C in Ohm/km		Approx. Cond. A.C. Resistance at 70°C in Ohm/km		App. Reactance at 50HZ in ohms/km	App. Capecitance of cable in microF/KM	Normal* Current Rating in Amps						Short Circuit Current Rating for 1Sec.duration in K. Amps	
							With Aluminium cond.			With Copper cond.				
	Al	Cu	Al	Cu			Ground	Duct	Air	Ground	Duct	Air	Al	Cu
4	—	4.61	—	5.53	0.140	0.58	—	—	—	39	38	35	0.304	0.460
6	4.61	3.08	5.53	3.70	0.127	0.68	39	37	35	49	48	44	0.456	0.690
10	3.08	1.83	3.70	2.20	0.118	0.83	51	51	47	65	64	60	0.760	1.150
16	1.91	1.15	2.29	1.38	0.110	1.01	66	65	64	85	83	82	1.220	1.84
25	1.20	0.727	1.44	0.87	0.105	1.05	86	84	84	110	110	110	1.900	2.88
35	0.868	0.524	1.04	0.63	0.100	1.22	100	100	105	130	125	130	2.660	4.03
50	0.641	0.387	0.769	0.464	0.098	1.22	120	115	130	155	150	165	3.800	5.75
70	0.443	0.268	0.532	0.322	0.091	1.43	140	135	155	190	175	205	5.320	8.05
95	0.320	0.193	0.384	0.232	0.088	1.47	175	155	190	220	200	245	7.220	10.90
120	0.253	0.153	0.304	0.184	0.086	1.62	195	170	220	250	220	280	9.120	13.80
150	0.206	0.1240	0.247	0.1488	0.085	1.62	220	190	250	280	245	320	11.40	17.30
185	0.164	0.0991	0.197	0.1189	0.084	1.62	240	210	290	305	260	370	14.10	21.30
240	0.125	0.0754	0.151	0.0912	0.082	1.72	270	225	335	345	285	425	18.20	27.30
300	0.100	0.0601	0.122	0.0733	0.080	1.74	295	245	380	375	310	475	22.80	34.50
400	0.0778	0.0470	0.0961	0.0580	0.080	1.81	325	275	435	400	335	550	30.40	46.00
500	0.0605	0.0366	0.0759	0.0459	0.079	1.86	345	295	480	425	355	590	38.00	57.50
630	0.0469	0.0283	0.0610	0.0368	0.077	1.87	390	320	550	470	375	660	47.90	72.50
800	0.0367	0.0221	0.0503	0.0303	0.077	1.98	450	380	610	530	425	725	60.80	92.00
1000	0.0291	0.0176	0.0422	0.0255	0.076	2.20	500	415	680	590	740	870	76.00	115.00

Note : Normal current ratings are given in standard conditions (as given in page no 40,41), if site conditions are different, current rating should be multiplied by rating factor as given in page no. 42

Table -2

TECHNICAL DETAIL FOR HAVELLS 1.1 KV TWO CORES, AL/ COPPER COND., PVC INSULATED, UN-ARMOURED CABLES

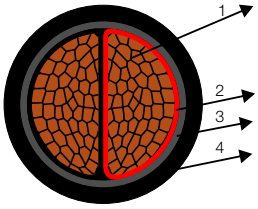
Cable Code : AYY/ YY

Ref. Spec. : IS:1554 Part -1

Physical Parameters

SIZE Cross--sectional area (sqmm)	Minimum No of Strands in Conductor Al	Cu	Nominal Thickness of Insulation) (mm)	Minimum thickness of inner Sh. (mm)	Nominal thick. of OUTER Sheath (mm)	Approx. Overall Diameter (mm)	Approx. Net Wt of cable (Kg/KM) With Al cond AYY	With Cu Cond. YY
4	—	1/7	1.0	0.30	1.80	14	240	290
6	1	1/7	1.0	0.30	1.80	17	300	370
10	1	6	1.0	0.30	1.80	18	400	520
16	6	6	1.0	0.30	1.80	17	430	630
25	6	6	1.2	0.30	2.00	19	450	750
35	6	6	1.2	0.30	2.00	21	550	980
50	6	6	1.4	0.30	2.00	24	700	1300
70	12	12	1.4	0.30	2.00	26	850	1700
95	15	15	1.6	0.40	2.20	30	1150	2300
120	15	18	1.6	0.40	2.20	32	1300	2800
150	15	18	1.8	0.40	2.40	34	1600	3450
185	30	30	2.0	0.50	2.40	38	2000	4300
240	30	34	2.2	0.50	2.60	42	2500	5500
300	30	34	2.4	0.60	2.80	46	3000	6700
400	53	53	2.6	0.70	3.20	52	3800	8750
500	53	53	3.0	0.70	3.40	54	4800	11000
630	53	53	3.4	0.70	3.80	65	6000	13800

Cross- Sectional View



1 CONDUCTOR : Material - Aluminium /Copper
*Shape : ~AL . Cond :- 6 & 10 SQMM -Solid circular, 16 sqmm & above : Stranded compacted shaped
~ Copper. Cond :- 4 & 6sqmm -solid/ stranded non compacted circular, 10sqmm : Stranded compacted circular, 16sqmm & above : Stranded compacted shaped
2 INSULATION : PVC Type A of IS :5831/ OPTION : HR PVC (Type -C of IS -5831), Colour : Red & Black
3 INNER SHEATH : PVC as per IS :1554PT-1
4 OUTER SHEATH : PVC TYPE ST-1 OF IS : 5831 '— OPTIONS : PVC TYPE ST-2 OF IS : 5831/ FR TYPE/ FRLS TYPE
COLOUR OF OUTER SHEATH : BLACK . OPTIONS : any other colour as per requirement.

~ Tabulated approx. net wt. of cables are only guidelines for transportation, loading &unloading purpose.
~ Please ref page no 43 for normal delivery lengths & packing details.

Electrical Parameters

SIZE cross-sectional area (Sq MM)	Max. Cond. D.C. Resistance at 20°C in Ohm/km		Approx. Cond. A.C. Resistance at 70°C in Ohm/km		App.Reactance of cable at 50HZ in ohms/km	App.Capecitance of cable in microF/KM	Normal* Current Rating in Amps With Aluminium cond.			With Copper cond.			Short Circuit Current Rating for 1Sec.duration in K. Amps	
	Al	Cu	Al	Cu			Ground	Duct	Air	Ground	Duct	Air	Al	Cu
4	—	4.61	—	5.53	0.098	0.23	32	27	27	41	35	35	0.304	0.460
6	4.61	3.08	5.53	3.70	0.096	0.28	40	34	35	50	44	45	0.456	0.690
10	3.08	1.83	3.70	2.20	0.091	0.34	55	45	47	70	58	60	0.760	1.150
16	1.91	1.15	2.29	1.38	0.085	0.40	70	58	59	90	75	78	1.220	1.840
25	1.20	0.727	1.44	0.87	0.083	0.42	90	76	78	115	97	105	1.900	2.880
35	0.868	0.524	1.04	0.63	0.082	0.48	110	92	99	140	120	125	2.660	4.030
50	0.641	0.387	0.769	0.464	0.082	0.49	135	115	125	165	145	155	3.800	5.750
70	0.443	0.268	0.532	0.322	0.076	0.56	160	140	150	205	180	195	5.320	8.050
95	0.320	0.193	0.384	0.232	0.076	0.58	190	170	185	240	215	230	7.220	10.90
120	0.253	0.153	0.304	0.184	0.075	0.63	210	190	210	275	235	265	9.120	13.80
150	0.206	0.1240	0.247	0.1488	0.074	0.63	240	210	240	310	270	305	11.40	17.300
185	0.164	0.0991	0.197	0.1189	0.074	0.64	275	240	275	350	300	350	14.10	21.280
240	0.125	0.0754	0.151	0.0912	0.073	0.67	320	275	325	405	345	410	18.20	27.600
300	0.100	0.0601	0.122	0.0733	0.073	0.68	355	305	365	450	385	465	22.80	34.500
400	0.0778	0.0470	0.0961	0.0580	0.072	0.70	385	345	420	490	485	530	30.40	46.000
500	0.0605	0.0366	0.0759	0.0459	0.072	0.70	425	380	475	540	460	605	38.00	57.500
630	0.0469	0.0283	0.0610	0.0368	0.072	0.70	465	415	540	640	550	785	47.90	72.550

Note : Normal current ratings are given in standard conditions (as given in page no 40,41) , if site conditions are different, current rating should be multiplied by rating factor as given in page no. 42

Table -3

TECHNICAL DETAIL FOR HAVELLS 1.1 KV
THREE CORES, AL/COPPER COND., PVC INSULATED, UN-ARMOURED CABLES

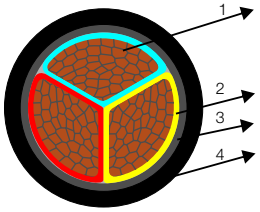
Cable Code : AYY/ YY

Ref. Spec. : IS :1554PART -1

Physical Parameters

SIZE Cross--sectional area (sqmm)	Minimum No of Strands in Conductor Al	Cu	Nominal thick. Thickness of Insulation) (mm)	Minimum thickness of inner Sh. (mm)	Nominal thick. of outer Sheath (mm)	Approx. Overall Diameter (mm)	Approx. Net Wt of cable (Kg/KM) With Al cond AYY	With Cu Cond. YY
4	—	1/7	1.0	0.30	1.80	16	270	340
6	1	1/7	1.0	0.30	1.80	18	360	470
10	1	6	1.0	0.30	1.80	19	440	650
16	6	6	1.0	0.30	1.80	19	460	730
25	6	6	1.2	0.30	2.00	22	620	1080
35	6	6	1.2	0.30	2.00	24	740	1400
50	6	6	1.4	0.30	2.00	27	940	1870
70	12	12	1.4	0.40	2.20	30	1200	2500
95	15	15	1.6	0.40	2.20	34	1600	3350
120	15	18	1.6	0.40	2.20	37	1900	4100
150	15	18	1.8	0.50	2.40	40	2300	5100
185	30	30	2.0	0.50	2.60	44	2750	6200
240	30	34	2.2	0.60	2.80	50	3500	7950
300	30	34	2.4	0.60	3.00	55	4300	9900
400	53	53	2.6	0.70	3.40	62	5450	12800
500	53	53	3.0	0.70	3.60	69	6900	16200
630	53	53	3.4	0.70	4.00	77	8700	20400

Cross-sectional View



1 CONDUCTOR : Material - Aluminium /Copper
*Shape : ~AL . Cond :- 6 & 10 sqmm - Solid circular, 16 sqmm & above : Stranded compacted shaped
~Copper . Cond :- 4 & 6 sqmm-solid/ stranded non compacted circular, 10 sqmm : Stranded compacted circular,16sqmm & above : Stranded compacted shaped

2 INSULATION : PVC Type A of IS :5831/ OPTION : HR PVC (Type -C of IS -5831), Colour : Red, Yellow & Blue

3 INNER SHEATH : PVC as per IS :1554PT-1

4 OUTER SHEATH : PVC TYPE ST-1 OF IS : 5831 '— OPTIONS : PVC TYPE ST-2 OF IS : 5831/ FR TYPE/ FRLS TYPE
COLOUR OF OUTER SHEATH : BLACK. OPTIONS : any other colour as per requirement.

~ Tabulated approx. net wt. of cables are only guidelines for transportation, loading &unloading purpose.
~ Please ref page no 43 for normal delivery lengths & packing details.

Electrical Parameter

SIZE cross-sectional area (Sq MM)	Max. Cond. D.C. Resistance at 20°C in Ohm/km Al	Cu	Approx. Cond. A.C. Resistance at 70°C in Ohm/km Al	Cu	pp.. Reactance at 50HZ in ohms/km	App. Capecitance of cable in microF/KM	Normal* Current Rating in Amps With Aluminium cond. Ground	Duct	Air	With Copper cond. Ground	Duct	Air	Short Circuit Current Rating for 1Sec.duration in K. Amps Al	Cu
4	— —	4.61	— —	5.53	0.098	0.23	28	23	23	36	30	30	0.304	0.460
6	4.61	3.08	5.53	3.70	0.096	0.28	35	30	30	45	38	39	0.456	0.690
10	3.08	1.83	3.70	2.20	0.091	0.34	46	39	40	60	50	52	0.760	1.150
16	1.91	1.15	2.29	1.38	0.085	0.40	60	50	51	77	64	66	1.220	1.840
25	1.20	0.727	1.44	0.87	0.083	0.42	76	63	70	99	81	90	1.900	2.880
35	0.868	0.524	1.04	0.63	0.082	0.48	92	77	86	120	99	110	2.660	4.030
50	0.641	0.387	0.769	0.464	0.082	0.49	110	95	105	145	125	135	3.800	5.750
70	0.443	0.268	0.532	0.322	0.076	0.56	135	115	130	175	150	165	5.320	8.050
95	0.320	0.193	0.384	0.232	0.076	0.58	165	140	155	210	175	200	7.220	10.900
120	0.253	0.153	0.304	0.184	0.075	0.63	185	155	180	240	195	230	9.120	13.800
150	0.206	0.1240	0.247	0.1488	0.074	0.63	210	175	205	270	225	265	11.40	17.300
185	0.164	0.0991	0.197	0.1189	0.074	0.64	235	200	240	300	255	305	14.10	21.300
240	0.125	0.0754	0.151	0.0912	0.073	0.67	275	235	280	345	295	355	18.20	27.600
300	0.100	0.0601	0.122	0.0733	0.073	0.68	305	260	315	385	335	400	22.80	34.500
400	0.0778	0.0470	0.0961	0.0580	0.072	0.70	335	290	375	425	360	435	30.40	46.000
500	0.0605	0.0366	0.759	0.0459	0.072	0.70	370	320	425	470	390	520	38.00	57.500
630	0.0469	0.0283	0.0610	0.0368	0.072	0.70	405	350	480	555	470	675	47.90	72.500

Note : Normal current ratings are given in standard conditions(as given in page no- 40,41) , if site conditions are different, current rating should be multiplied by rating factor as given in page no. 42

Table -4

TECHNICAL DETAIL FOR HAVELLS 1.1 KV
THREE & HALF CORES, AL/COPPER COND., PVC INSULATED, UN-ARMOURED CABLES

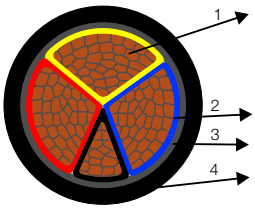
Cable Code : AYY/ YY

Ref. Spec. : IS :1554PART -1

Physical Parameters

SIZE cross-sectional area (Sq MM)	Minimum nos of Strands in conductor		Nominal Thickness of Insulation) (mm) Phase / Neutral	Minimum Thickness of inner sheath (mm)	Nominal thickness of outer sheath (mm)	Approx. Overal Diameter (mm)	Approx. Net Wt. of cable (Kg/KM)	
	Phase	Neutral					With Al Conductor AYY	With Cu conductor YY
	Al	Cu						
3X25+16	6/6	6/6	1.20/1.00	0.30	2.00	24	700	1264
3X35+16	6/6	6/6	1.20/1.00	0.30	2.00	26	850	1600
3X50+25	6/6	6/6	1.40/1.20	0.30	2.00	29	1050	2100
3X70+35	12/6	12/6	1.40/1.20	0.40	2.20	32	1400	2900
3X95+50	15/6	15/6	1.60/1.40	0.40	2.20	36	1800	3900
3X120+70	15/12	18/12	1.60/1.40	0.50	2.40	40	2200	4850
3X150+70	15/12	18/12	1.80/1.40	0.50	2.40	44	2600	5800
3X185+95	30/15	30/15	2.00/1.60	0.50	2.60	48	3200	7200
3X240+120	30/15	34/18	2.20/1.60	0.60	3.00	54	4100	9300
3X300+150	30/15	34/18	2.40/1.80	0.60	3.20	62	5000	11500
3X400+185	53/30	53/30	2.60/2.00	0.70	3.40	68	6300	15000
3X500+240	53/30	53/34	3.00/2.20	0.70	3.80	77	8000	18500
3X630+300	53/30	53/34	3.40/2.40	0.70	4.00	87	10000	23500

Cross-sectional View



1 CONDUCTOR : Material - Aluminium /Copper
*Shape : ~AL . Cond :- 6 & 10 sq mm -Solid circular, 16sqmm & above : Stranded compacted shaped
~Copper . Cond :- 4 & 6sqmm -solid/ stranded non compacted circular , 10sqmm : Stranded compacted circular,16sqmm & above : Stranded compacted shaped

2 INSULATION : PVC Type A of IS :5831/ OPTION : HR PVC (Type -C of IS -5831), Colour : Red, Yellow, Blue, Black

3 INNER SHEATH : PVC as per IS :1554PT-1

4 OUTER SHEATH : PVC TYPE ST-1 OF IS : 5831 '— OPTIONS : PVC TYPE ST-2 OF IS : 5831/ FR TYPE/ FRLS TYPE
COLOUR OF OUTER SHEATH : BLACK . OPTIONS : any other colour as per requirement.

~ Tabulated approx. net wt. of cables are only guidelines for transportation, loading &unloading purpose ..

~ Please ref page no 43 for normal delivery lengths & packing details.

Electrical Parameters

SIZE cross-sectional area (Sq MM)	Max. Cond. D.C. Resistance at 20°C in Ohm/km		Approx. Cond. A.C. Resistance at 70°C in Ohm/km		App.Reactance of cable at 50HZ in ohms/km	App. Capecitance of cable in microF/KM	Normal* Current Rating in Amps						Short Circuit Current Rating for 1Sec.duration in K. Amps	
							With Aluminium cond.			With Copper cond.				
	Al	Cu	Al	Cu			Ground	Duct	Air	Ground	Duct	Air	Al	Cu
3X25+16	1.20	0.727	1.44	0.87	0.083	0.42	76	63	70	99	81	90	1.90	2.88
3X35+16	0.868	0.524	1.04	0.63	0.082	0.48	92	77	86	120	99	110	2.66	4.03
3X50+25	0.641	0.387	0.769	0.464	0.082	0.49	110	95	105	145	125	135	3.80	5.75
3X70+35	0.443	0.268	0.532	0.322	0.076	0.56	135	115	130	175	150	165	5.32	8.05
3X95+50	0.320	0.193	0.384	0.232	0.076	0.58	165	140	155	210	175	200	7.22	10.90
3X120+70	0.253	0.153	0.304	0.184	0.075	0.63	185	155	180	240	195	230	9.12	13.80
3X150+70	0.206	0.1240	0.247	0.1488	0.074	0.63	210	175	205	270	225	265	11.40	17.30
3X185+95	0.164	0.0991	0.197	0.1189	0.074	0.64	235	200	240	300	255	305	14.10	21.30
3X240+120	0.125	0.0754	0.151	0.0912	0.073	0.67	275	235	280	345	295	355	18.20	27.60
3X300+150	0.100	0.0601	0.122	0.0733	0.073	0.68	305	260	315	385	335	400	22.80	34.50
3X400+185	0.0778	0.0470	0.0961	0.0580	0.072	0.70	335	290	375	425	360	435	30.40	46.00
3X500+240	0.0605	0.0366	0.0759	0.0459	0.072	0.70	370	320	425	470	390	520	38.00	57.50
3X630+300	0.0469	0.0283	0.0610	0.0368	0.072	0.70	405	350	480	555	470	675	47.90	72.50

Note : Normal current ratings are given in standard conditions (as given in page no- 40,41) , if site conditions are different, current rating should be multiplied by rating factor as given in page no. 42

Table -5

TECHNICAL DETAIL FOR HAVELLS 1.1 KV
FOUR CORES, AL/COPPER COND., PVC INSULATED, UN-ARMOURED CABLES

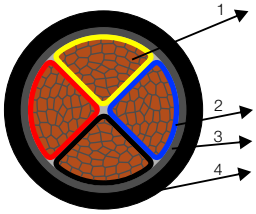
Cable Code : AYY/ YY

Ref. Spec. : IS :1554PART -1

Physical Parameters

SIZE cross-sectional area (sq mm)	Minimum No of Strand in Conductor		Nominal Thickness of Insulation) (mm)	Minimum Thickness of inner sheath (mm)	Nominal thickness of outer sheath (mm)	Approx. Overal Diameter (mm)	Approx. Net Wt. of cable (Kg/KM)	
							With Al Conductor	With Cu
	Al	Cu					AYY	YY
4	—	1/7	1.0	0.30	1.80	16	300	400
6	1	1/7	1.0	0.30	1.80	18	390	540
10	1	6	1.0	0.30	1.80	20	540	788
16	6	6	1.0	0.30	2.00	23	560	950
25	6	6	1.2	0.30	2.00	26	750	1370
35	6	6	1.2	0.30	2.00	30	940	1800
50	6	6	1.4	0.40	2.20	34	1250	2500
70	12	12	1.4	0.40	2.20	38	1550	3300
95	15	15	1.6	0.40	2.40	43	2050	4400
120	15	18	1.6	0.50	2.40	46	2400	5380
150	15	18	1.8	0.50	2.60	51	2950	6670
185	30	30	2.0	0.60	2.80	55	3650	8250
240	30	34	2.2	0.60	3.00	60	4600	10550
300	30	34	2.4	0.70	3.40	66	5500	12950
400	53	53	2.6	0.70	3.60	73	6800	16720
500	53	53	3.0	0.70	4.00	82	8600	21000
630	53	53	3.4	0.70	4.00	92	11000	26000

Cross- Sectional View



1 CONDUCTOR : Material - Aluminium /Copper
*Shape : ~AL . Cond :- 6 & 10SQMM -Solid circular, 16sqmm & above : Stranded compacted shaped
~Copper . Cond :- 4 & 6sqmm -solid/ stranded non compacted circular, 10sqmm : Stranded compacted circular,16sqmm & above : Stranded compacted shaped

2 INSULATION : PVC Type A of IS :5831/ OPTION : HR PVC (Type -C of IS -5831), Colour : Red, Yellow, Blue, Black

3 INNER SHEATH : PVC as per IS :1554PT-1

4 OUTER SHEATH : PVC TYPE ST-1 OF IS : 5831 '— OPTIONS : PVC TYPE ST-2 OF IS : 5831/ FR TYPE/ FRLS TYPE
COLOUR OF OUTER SHEATH : BLACK . OPTIONS : any other colour as per requirement.

~ Tabulated approx. net wt. of cables are only guidelines for transportation, loading &unloading purpose ..

~ Please ref page no 43 for normal delivery lengths & packing details.

Electrical Parameters

SIZE cross-sectional area (Sq MM)	Max. Cond. D.C. Resistance at 20°C in Ohm/km		Approx. Cond. A.C. Resistance at 70°C in Ohm/km		App.Reactance of cable at 50HZ in ohms/km	App. Capecitance of cable in microF/KM	Normal* Current Rating in Amps						Short Circuit Current Rating for 1Sec.duration in K. Amps	
							With Aluminium cond.			With Copper cond.				
							Ground	Duct	Air	Ground	Duct	Air		
	Al	Cu	Al	Cu									Al	Cu
4	— —	4.61	— —	5.53	0.098	0.23	28	23	23	36	30	30	0.304	0.460
6	4.61	3.08	5.53	3.70	0.096	0.28	35	30	30	45	38	39	0.456	0.690
10	3.08	1.83	3.70	2.20	0.091	0.34	46	39	40	60	50	52	0.760	1.150
16	1.91	1.15	2.29	1.38	0.085	0.40	60	50	51	77	64	66	1.220	1.840
25	1.20	0.727	1.44	0.87	0.083	0.42	76	63	70	99	81	90	1.900	2.880
35	0.868	0.524	1.04	0.63	0.082	0.48	92	77	86	120	99	110	2.660	4.030
50	0.641	0.387	0.769	0.464	0.082	0.49	110	95	105	145	125	135	3.800	5.750
70	0.443	0.268	0.532	0.322	0.076	0.56	135	115	130	175	150	165	5.320	8.050
95	0.320	0.193	0.384	0.232	0.076	0.58	165	140	155	210	175	200	7.220	10.900
120	0.253	0.153	0.304	0.184	0.075	0.63	185	155	180	240	195	230	9.120	13.800
150	0.206	0.1240	0.247	0.1488	0.074	0.63	210	175	205	270	225	265	11.400	17.300
185	0.164	0.0991	0.197	0.1189	0.074	0.64	235	200	240	300	255	305	14.100	21.300
240	0.125	0.0754	0.151	0.0912	0.073	0.67	275	235	280	345	295	355	18.200	27.600
300	0.100	0.0601	0.122	0.0733	0.073	0.68	305	260	315	385	335	400	22.800	34.500
400	0.0778	0.0470	0.0961	0.0580	0.072	0.70	335	290	375	425	360	435	30.400	46.000
500	0.0605	0.0366	0.0759	0.0459	0.072	0.70	370	320	425	470	390	520	38.000	57.500
630	0.0469	0.0283	0.0610	0.0368	0.072	0.70	405	350	480	555	470	675	47.900	72.500

Note : Normal current ratings are given in standard conditions (as given in page no 40,41) , if site conditions are different, current rating should be multiplied by rating factor as given in page no. 42

Table -6

TECHNICAL DETAIL FOR HAVELLS 1.1 KV
SINGLE CORE, AL/COPPER COND., PVC INSULATED, AL WIRE/STRIP ARMOURED CABLES

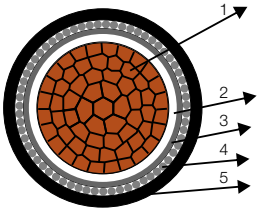
Cable Code : AYFaY/ YFaY, AYWaY/ YWaY

Ref. Spec. : IS :1554PART -1

Physical Parameters

SIZE Cross--sectional area (sqmm)	Minimum No of Strands in Conductor Al	Cu	Nominal Thickness of Insulation) (mm)	ARMOURING WITH FLAT STRIP (AYFaY/ YFaY) Nominal Thickness of armour (mm)	Minimum Thickness of outer sheath (mm)	Approx. Overall Diameter (mm)	Approx. Net Wt of cable (Kg/KM) With Al cond AYFaY	With Cu Cond. YFaY	ARMOURING WITH ROUND WIRES (AYWaY/ YWaY) Nominal Diameter of wire (mm)	Minimum Thickness of outer sheath (mm)	Approx. Overall Diameter (mm)	Approx. Net Wt of cable (Kg/KM) With Al cond AYWaY	With Cu Cond. YWaY
4	—	1/7	1.3	N/A	N/A	N/A	N/A	N/A	1.40	1.24	11	150	180
6	1	1/7	1.3	N/A	N/A	N/A	N/A	N/A	1.40	1.24	12	180	210
10	1	6	1.3	N/A	N/A	N/A	N/A	N/A	1.40	1.24	13	200	260
16	6	6	1.3	N/A	N/A	N/A	N/A	N/A	1.40	1.24	14	250	350
25	6	6	1.5	N/A	N/A	N/A	N/A	N/A	1.40	1.24	15	300	450
35	6	6	1.5	N/A	N/A	N/A	N/A	N/A	1.40	1.24	16	350	560
50	6	6	1.7	N/A	N/A	N/A	N/A	N/A	1.40	1.24	18	450	750
70	12	12	1.7	N/A	N/A	N/A	N/A	N/A	1.40	1.40	20	550	980
95	15	15	1.9	0.80	1.40	21	650	1230	1.60	1.40	22	700	1300
120	15	18	1.9	0.80	1.40	23	750	1500	1.60	1.40	24	800	1550
150	15	18	2.1	0.80	1.40	24	900	1830	1.60	1.40	26	950	1880
185	30	30	2.3	0.80	1.40	27	1050	2200	1.60	1.40	29	1100	2250
240	30	34	2.5	0.80	1.40	30	1300	2800	1.60	1.56	32	1400	2900
300	30	34	2.7	0.80	1.56	32	1600	3450	1.60	1.56	33	1650	3500
400	53	53	3.0	0.80	1.56	37	1950	4400	2.00	1.56	39	2100	4580
500	53	53	3.4	0.80	1.56	40	2400	5500	2.00	1.72	42	2700	5800
630	53	53	3.9	0.80	1.72	45	3100	7000	2.00	1.88	48	3300	7200
800	53	53	3.9	0.80	1.88	49	3700	8650	2.00	1.88	52	4000	8950
1000	53	53	3.9	0.80	2.04	55	4600	10800	2.50	2.04	59	4900	11000

Cross- Sectional View



1. CONDUCTOR : Material - Aluminium /Copper
   *Shape : ~AL . Cond :- 6 & 10 sqmm - Solid circular, 16 sqmm & above : Stranded compacted shaped
   ~Copper . Cond :- 4 & 6sqmm -solid/ stranded non compacted circular, 10sqmm : Stranded compacted circular,16sqmm & above : Stranded compacted shaped
2. INSULATION : PVC Type A of IS :5831/ OPTION : HR PVC (Type -C of IS -5831), Colour : Black
3. INNER SHEATH : PVC as per IS :1554PT-1
4. ARMOURING : Single layer of Aluminium Round wires / Flat Strips
5. OUTER SHEATH : PVC TYPE ST-1 OF IS : 5831 '— OPTIONS : PVC TYPE ST-2 OF IS : 5831/ FR TYPE/ FRLS TYPE
   COLOUR OF OUTER SHEATH : BLACK. OPTIONS : any other colour as per requirement.

~ Tabulated approx. net wt. of cables are only guidelines for transportation, loading &unloading purpose.

~ Please ref page no 43 for normal delivery lengths & packing details.

Electrical Parameters

SIZE cross-sectional area (Sq MM)	Max. Cond. D.C. Resistance at 20°C in Ohm/km Al	Cu	Approx. Cond. A.C. Resistance at 70°C in Ohm/km Al	Cu	App.Reactance of cable in at 50HZ ohms/km	App. Capecitance of cable in microF/KM	Normal* Current Rating in Amps With Aluminium cond. Ground	Duct	Air	With Copper cond. Ground	Duct	Air	Short Circuit Current Rating for 1Sec.duration in K. Amps Al	Cu
4	7.41	4.61	8.89	5.53	0.157	0.48	31	30	27	39	38	35	0.304	0.460
6	4.61	3.08	5.53	3.70	0.148	0.56	39	37	35	49	48	44	0.456	0.690
10	3.08	1.83	3.70	2.20	0.138	0.67	51	51	47	65	64	60	0.760	1.150
16	1.91	1.15	2.29	1.38	0.128	0.81	66	65	64	85	83	82	1.220	1.840
25	1.20	0.727	1.44	0.87	0.120	0.87	86	84	84	110	110	110	1.900	2.880
35	0.868	0.524	1.04	0.63	0.114	1.00	100	100	105	130	125	130	2.660	4.030
50	0.641	0.387	0.769	0.464	0.110	1.03	120	115	130	155	150	165	3.800	5.750
70	0.443	0.268	0.532	0.322	0.103	1.21	140	135	155	190	175	205	5.320	8.050
95	0.320	0.193	0.384	0.232	0.101	1.27	175	155	190	220	200	245	7.220	10.90
120	0.253	0.153	0.304	0.184	0.096	1.42	195	170	220	250	220	280	9.120	13.80
150	0.206	0.1240	0.247	0.1488	0.094	1.42	220	190	250	280	245	320	11.400	17.30
185	0.164	0.0991	0.197	0.1189	0.092	1.44	240	210	290	305	260	370	14.100	21.30
240	0.125	0.0754	0.151	0.0912	0.090	1.53	270	225	335	345	285	425	18.200	27.60
300	0.100	0.0601	0.122	0.0733	0.088	1.56	295	245	380	375	310	475	22.800	34.50
400	0.0778	0.0470	0.0961	0.0580	0.088	1.59	325	275	435	400	335	550	30.400	46.00
500	0.0605	0.0366	0.076	0.0459	0.087	1.67	345	295	480	425	355	590	38.000	57.50
630	0.0469	0.0283	0.0610	0.0368	0.086	1.67	390	320	550	470	375	660	47.880	72.50
800	0.0367	0.0221	0.0503	0.0303	0.083	1.75	450	380	610	530	423	725	60.800	92.00
1000	0.0291	0.0176	0.0422	0.0255	0.082	1.94	500	414	680	590	471	870	76.000	115.00

Note : Normal current ratings are given in standard conditions (as given in page no - 40,41) , if site conditions are different, current rating should be multiplied by rating factor as given in page no. 42

Table -7

TECHNICAL DETAIL FOR HAVELLS 1.1 KV TWO CORES, AL/COPPER COND., PVC INSULATED, GALVANIZED STEEL WIRE/STRIP ARMOURED CABLES

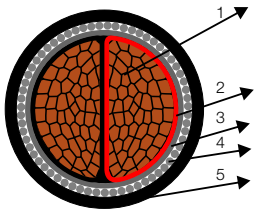
Cable Code : AYFY/ YFY, AYWY/ YWY

Ref. Spec. : IS :1554 PART -1

Physical Parameters

SIZE Cross--sectional area (sqmm)	Minimum No of Strands in Conductor		Nominal Thickness of Insulation) (mm)	Minimum Thickness of inner Sh. (mm)	ARMOURING WITH FLAT STRIP (AYFY/ YFY)					ARMOURING WITH ROUND WIRES (AYWY/ YWY)				
					Nominal Thickness of armour (mm)	Minimum Thickness of outer sheath (mm)	Approx. Overall Diameter (mm)	Approx. Net Wt of cable (Kg/KM)		Nominal Diameter of armour (mm)	Minimum Thickness of outer sheath (mm)	Approx. Overall Diameter (mm)	Approx. Net Wt of cable (Kg/KM)	
								With Al cond	With Cu Cond.				With Al cond	With Cu Cond.
	Al	Cu						AYFY	YFY				AYWY	YWY
4	—	1/7	1.0	0.30	N/A	N/A	N/A	N/A	N/A	1.40	1.24	18	600	650
6	1	1/7	1.0	0.30	N/A	N/A	N/A	N/A	N/A	1.40	1.24	19	660	730
10	1	6	1.0	0.30	N/A	N/A	N/A	N/A	N/A	1.40	1.24	20	750	870
16	6	6	1.0	0.30	0.80	1.40	18	580	780	1.60	1.40	20	750	950
25	6	6	1.2	0.30	0.80	1.40	20	700	1000	1.60	1.40	22	900	1200
35	6	6	1.2	0.30	0.80	1.40	22	800	1230	1.60	1.40	23	1030	1450
50	6	6	1.4	0.30	0.80	1.40	25	1000	1620	1.60	1.56	26	1300	1900
70	12	12	1.4	0.30	0.80	1.56	27	1200	2050	1.60	1.56	29	1500	2350
95	15	15	1.6	0.40	0.80	1.56	30	1550	2720	2.00	1.56	33	2050	3200
120	15	18	1.6	0.40	0.80	1.56	32	1800	3290	2.00	1.72	35	2400	3900
150	15	18	1.8	0.40	0.80	1.72	35	2100	3970	2.00	1.72	37	2760	4600
185	30	30	2.0	0.50	0.80	1.88	38	2500	4800	2.00	1.88	41	3200	5500
240	30	34	2.2	0.50	0.80	2.04	43	3100	6080	2.50	2.04	47	4200	7200
300	30	34	2.4	0.60	0.80	2.20	48	3700	7400	2.50	2.20	50	5000	8700
400	53	53	2.6	0.70	0.80	2.36	53	4500	9450	3.15	2.52	58	6600	11500
500	53	53	3.0	0.70	0.80	2.68	56	5600	11800	3.15	2.84	64	8000	14000
630	53	53	3.4	0.70	0.80	2.84	66	6900	14700	4.00	3.00	72	11000	18800

Cross- Sectional View



CONDUCTOR : Material - Aluminium /Copper

*Shape : ~AL . Cond :- 6 & 10SQMM -Solid circular, 16sqmm & above : Stranded compacted shaped

~Copper. Cond :- 4 & 6 sqmm-solid/ stranded non compacted circular, 10sqmm : Stranded compacted circular,16sqmm & above : Stranded compacted shaped

INSULATION : PVC Type A of IS :5831/ OPTION : HR PVC (Type -C of IS -5831), Colour : Red & Black

INNER SHEATH : PVC as per IS :1554PT-1

ARMOURING : Single layer of Galvanized steel Round wires / Flat Strips

OUTER SHEATH : PVC TYPE ST-1 OF IS : 5831 ' — OPTIONS : PVC TYPE ST-2 OF IS : 5831/ FR TYPE/ FRLS TYPE

COLOUR OF OUTER SHEATH : BLACK . OPTIONS : any other colour as per requirement.

~ Tabulated approx. net wt. of cables are only guidelines for transportation, loading &unloading purpose.

~ Please ref page no 43 for normal delivery lengths & packing details.

Electrical Parameters

SIZE cross-sectional area (Sq MM)	Max. Cond. D.C. Resistance at 20°C in Ohm/km		Approx. Cond. A.C. Resistance at 70°C in Ohm/km		App.Reactance of cable at 50HZ in ohms/km	App. Capecitance of cable in microF/KM	Normal* Current Rating in Amps						Short Circuit Current Rating for 1Sec. duration in K. Amps	
							With Aluminium cond.			With Copper cond.				
							Ground	Duct	Air	Ground	Duct	Air		
	Al	Cu	Al	Cu									Al	Cu
4	---	4.61	---	5.53	0.098	0.23	32	27	27	41	35	35	0.304	0.460
6	4.61	3.08	5.53	3.70	0.096	0.28	40	34	35	50	44	45	0.456	0.690
10	3.08	1.83	3.70	2.20	0.091	0.34	55	45	47	70	58	60	0.760	1.150
16	1.91	1.15	2.29	1.38	0.085	0.40	70	58	59	90	75	78	1.220	1.840
25	1.20	0.727	1.44	0.87	0.083	0.42	90	76	78	115	97	105	1.90	2.880
35	0.868	0.524	1.04	0.63	0.082	0.48	110	92	99	140	120	125	2.66	4.030
50	0.641	0.387	0.769	0.464	0.082	0.49	135	115	125	165	145	155	3.80	5.750
70	0.443	0.268	0.532	0.322	0.076	0.56	160	140	150	205	180	195	5.32	8.050
95	0.320	0.193	0.384	0.232	0.076	0.58	190	170	185	240	215	230	7.22	10.90
120	0.253	0.153	0.304	0.184	0.075	0.63	210	190	210	275	235	265	9.12	13.80
150	0.206	0.1240	0.247	0.1488	0.074	0.63	240	210	240	310	270	305	11.40	17.30
185	0.164	0.0991	0.197	0.1189	0.074	0.64	275	240	275	350	300	350	14.10	21.30
240	0.125	0.0754	0.151	0.0912	0.073	0.67	320	275	325	405	345	410	18.20	27.60
300	0.100	0.0601	0.122	0.0733	0.073	0.68	355	305	365	450	385	465	22.80	34.50
400	0.0778	0.0470	0.0961	0.0580	0.072	0.70	385	345	420	490	485	530	30.40	46.00
500	0.0605	0.0366	0.0759	0.0459	0.072	0.70	425	380	475	540	460	605	38.00	57.50
630	0.0469	0.0283	0.0610	0.0368	0.072	0.70	465	415	540	640	550	785	47.90	72.50

Note : Normal current ratings are given in standard conditions (as given in page no - 40,41), if site conditions are different, current rating should be multiplied by rating factor as given in page no. 42

Table -8

TECHNICAL DETAIL FOR HAVELLS 1.1 KV THREE CORES, AL/COPPER COND., PVC INSULATED, GALVANIZED STEEL WIRE/STRIP ARMOURED CABLES

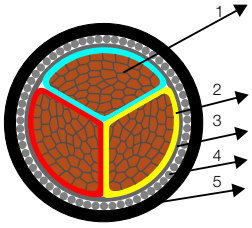
Cable Code : AYFY/ YFY, AYWY/ YWY

Ref. Spec. : IS :1554 PART -1

Physical Parameters

SIZE Cross--sectional area (sq mm)	Minimum No of Strands in Conductor Al	Cu	Nominal Thickness of Insulation) (mm)	Minimum Thickness of inner Sh. (mm)	ARMOURING WITH FLAT STRIP (AYFY/ YFY) Nominal Thick. of armour strip (mm)	Minimum Thick. of outer sheath (mm)	Approx. Overall Diameter (mm)	Approx. Net Wt of cable (Kg/KM) With Al cond AYFY	With Cu Cond. YFY	ARMOURING WITH ROUND WIRES (AYWY/ YWY) Nominal Diameter of wire (mm)	Minimum Thickness of outer sheath (mm)	Approx. Overall Diameter (mm)	Approx. Net Wt of cable (Kg/KM) With Al cond AYWY	With Cu Cond. YWY
4	--	1/7	1.0	0.30	N/A	N/A	N/A	N/A	N/A	1.40	1.24	18	600	650
6	1	1/7	1.0	0.30	N/A	N/A	N/A	N/A	N/A	1.40	1.24	19	700	810
10	1	6	1.0	0.30	N/A	N/A	N/A	N/A	N/A	1.40	1.40	21	900	1100
16	6	6	1.0	0.30	0.80	1.40	20	700	1000	1.60	1.40	21	950	1250
25	6	6	1.2	0.30	080.	1.40	23	900	1350	1.60	1.40	23	1100	1550
35	6	6	1.2	0.30	0.80	1.40	24	1000	1650	1.60	1.40	26	1300	1950
50	6	6	1.4	0.30	0.80	1.56	27	1300	2230	1.60	1.56	29	1600	2530
70	12	12	1.4	0.40	0.80	1.56	31	1600	2900	2.00	1.56	33	2150	3450
95	15	15	1.6	040	0.80	1.56	35	2000	3750	2.00	1.72	37	2650	4400
120	15	18	1.6	0.40	0.80	1.72	37	2400	4630	2.00	1.72	39	3000	5200
150	15	18	1.8	0.50	0.80	1.88	41	2800	5600	2.00	1.88	43	3550	6300
185	30	30	2.0	0.50	0.80	1.88	46	3400	6840	2.50	2.04	49	4600	8000
240	30	34	2.2	0.60	0.80	2.20	51	4200	8650	2.50	2.20	54	5600	10000
300	30	34	2.4	0.60	0.80	2.36	56	5050	10630	2.50	2.36	59	6600	12000
400	53	53	2.6	0.70	0.80	2.52	63	6300	13740	3.15	2.68	68	8700	16000
500	53	53	3.0	0.70	0.80	2.84	70	7800	17100	3.15	3.00	75	11000	20000
630	53	53	3.4	0.70	0.80	3.00	78	9700	21418	4.00	3.00	84	14000	25500

Cross- Sectional View



1 CONDUCTOR : Material - Aluminium /Copper
*Shape : ~AL . Cond :- 6 & 10SQMM -Solid circular, 16sqmm & above : Stranded compacted shaped
~Copper . Cond :- 4 & 6sqmm -solid/ stranded non compacted circular, 10sqmm : Stranded compacted circular, 16sqmm & above : Stranded compacted shaped
2 INSULATION : PVC Type A of IS :5831/ OPTION : HR PVC (Type -C of IS -5831), Colour : Red, Yellow, Blue
3 INNER SHEATH : PVC as per IS :1554PT-1
4 ARMOURING : Single layer of Galvanized steel Round wires / Flat Strips
5 OUTER SHEATH : PVC TYPE ST-1 OF IS : 5831 '— OPTIONS : PVC TYPE ST-2 OF IS : 5831/ FR TYPE/ FRLS TYPE
COLOUR OF OUTER SHEATH : BLACK . OPTIONS : any other colour as per requirement.

~ Tabulated approx. net wt. of cables are only guidelines for transportation, loading &unloading purpose.
~Please ref page no 43 for normal delivery lengths & packing details.

Electrical Parameters

SIZE cross-sectional area (Sq MM)	Max. Cond. D.C. Resistance at 20°C in Ohm/km Al	Cu	Approx. Cond. A.C. Resistance at 70°C in Ohm/km Al	Cu	App.Reactance at 50HZ in ohms/km	App. Capecitance of cable in microF/KM	Normal* Current Rating in Amps With Aluminium cond. Ground	Duct	Air	With Copper cond. Ground	Duct	Air	Short Circuit Current Rating for 1Sec.duration in K. Amps Al	Cu
4	—	4.61	—	5.53	0.098	0.23	28	23	23	36	30	30	0.304	0.460
6	4.61	3.08	5.53	3.70	0.096	0.28	35	30	30	45	38	39	0.456	0.690
10	3.08	1.83	3.70	2.20	0.091	0.34	46	39	40	60	50	52	0.760	1.150
16	1.91	1.15	2.29	1.38	0.085	0.40	60	50	51	77	64	66	1.220	1.840
25	1.20	0.727	1.44	0.87	0.083	0.42	76	63	70	99	81	90	1.900	2.880
35	0.868	0.524	1.04	0.63	0.082	0.48	92	77	86	120	99	110	2.660	4.030
50	0.641	0.387	0.769	0.464	0.082	0.49	110	95	105	145	125	135	3.800	5.750
70	0.443	0.268	0.532	0.322	0.076	0.56	135	115	130	175	150	165	5.320	8.050
95	0.320	0.193	0.384	0.232	0.076	0.58	165	140	155	210	175	200	7.220	10.900
120	0.253	0.153	0.304	0.184	0.075	0.63	185	155	180	240	195	230	9.120	13.800
150	0.206	0.1240	0.247	0.1488	0.074	0.63	210	175	205	270	225	265	11.400	17.300
185	0.164	0.0991	0.197	0.1189	0.074	0.64	235	200	240	300	255	305	14.100	21.300
240	0.125	0.0754	0.151	0.0912	0.073	0.67	275	235	280	345	295	355	18.200	27.600
300	0.100	0.0601	0.122	0.0733	0.073	0.68	305	260	315	385	335	400	22.800	34.500
400	0.0778	0.0470	0.0961	0.0580	0.072	0.70	335	290	375	425	360	435	30.400	46.000
500	0.0605	0.0366	0.0759	0.0459	0.072	0.70	370	320	425	470	390	520	38.000	57.500
630	0.0469	0.0283	0.0610	0.0368	0.072	0.70	405	350	480	555	470	675	47.900	72.500

Note : Normal current ratings are given in standard conditions (as given in page no - 40,41), if site conditions are different, current rating should be multiplied by rating factor as given in page no. 42

Table -9

TECHNICAL DETAIL FOR HAVELLS 1.1 KV THREE AND HALF CORES, AL/CUCOPPER COND., PVC INSULATED, GALVANIZED STEEL WIRE/STRIP ARMOURED CABLES

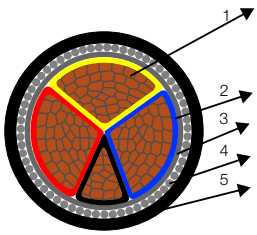
Cable Code : 3.5 Core - AYFY / YFY, AYWY / YWY

Ref. Spec. : IS :1554PART -1

Physical Parameters

SIZE Cross--sectional area (sqmm)	Minimum Nos of Strands in Conductor Phase/Neutral		Nominal Thickness of Insulation) (mm) Phase/Neutral	Minimum Thickness of inner Sh. (mm)	ARMOURING WITH FLAT STRIP (AYFY/ YFY) Nominal Thickness Strip (mm)	Minimum Thickness of outer sheath (mm)	Approx. Overall Diameter (mm)	Approx. Net Wt of cable (Kg/KM) With Al cond AYFY	Approx. Net Wt of cable (Kg/KM) With Cu Cond. YFY	ARMOURING WITH ROUND WIRES (AYWY/ YWY) Nominal Diameter of wire (mm)	Minimum Thickness of outer sheath (mm)	Approx. Overall Diameter (mm)	Approx. Net Wt of cable (Kg/KM) With Al cond AYWY	Approx. Net Wt of cable (Kg/KM) With Cu Cond. YWY
3X25+16	6/6	6/6	1.20/1.00	0.30	0.80	1.40	24	1000	1550	1.60	1.40	26	1300	1850
3X35+16	6/6	6/6	1.20/1.00	0.30	0.80	1.40	26	1200	1950	1.60	1.40	28	1450	2150
3X50+25	6/6	6/6	1.40/1.20	0.30	0.80	1.56	30	1500	2600	1.60	1.56	31	1800	2800
3X70+35	12/6	12/6	1.40/1.20	0.40	0.80	1.56	34	1800	3300	2.00	1.56	36	2400	3800
3X95+50	15/6	15/6	1.60/1.40	0.40	0.80	1.56	37	2300	4350	2.00	1.72	39	3000	5000
3X120+70	15/12	18/12	1.60/1.40	0.50	0.80	1.72	41	2800	5450	2.00	1.88	43	3500	6100
3X150+70	15/12	18/12	1.80/1.40	0.50	0.8	1.88	45	3200	6400	2.00	1.88	47	4000	7200
3X185+95	30/15	30/15	2.00/1.60	0.50	0.80	2.04	49	3900	7900	2.50	2.04	53	5200	9200
3X240+120	30/15	34/18	2.20/1.60	0.60	0.80	2.20	55	4800	10000	2.50	2.30	58	6400	11500
3X300+150	30/15	34/18	2.40/1.80	0.60	0.80	2.36	61	5800	12300	3.15	2.52	65	8200	14500
3X400+185	53/30	53/30	2.60/2.00	0.70	0.80	2.68	69	7300	15800	3.15	2.63	75	9900	18400
3X500+240	53/30	53/34	3.00/2.20	0.70	0.80	2.84	77	9000	19500	4.00	3.00	84	13500	24000
3X630+300	53/30	53/34	3.40/2.40	0.70	0.80	3.00	87	11500	25000	4.00	3.00	92	16000	28500

Cross- Sectional View



1 CONDUCTOR : Material - Aluminium /Copper
*Shape : ~AL . Cond :- 6 & 10SQMM -Solid circular, 16sqmm & above : Stranded compacted shaped
~Copper. Cond :- 4 & 6sqmm -solid/ stranded non compacted circular, 10sqmm : Stranded compacted circular,16sqmm & above : Stranded compacted shaped
2 INSULATION : PVC Type A of IS :5831/ OPTION : HR PVC (Type -C of IS -5831), Colour : Red, Yellow, Blue, Black
3 INNER SHEATH : PVC as per IS :1554PT-1
4 ARMOURING : Single layer of Galvanized steel Round wires / Flat Strips
5 OUTER SHEATH : PVC TYPE ST-1 OF IS : 5831 '— OPTIONS : PVC TYPE ST-2 OF IS : 5831/ FR TYPE/ FRLS TYPE
COLOUR OF OUTER SHEATH : BLACK . OPTIONS : any other colour as per requirement.

~ Tabulated approx. net wt. of cables are only guidelines for transportation, loading &unloading purpose.
~ Please ref page no 43 for normal delivery lengths & packing details.

Electrical Parameters

SIZE cross-sectional area (Sq MM)	Max. Cond. D.C. Resistance at 20°C in Ohm/km Al	Max. Cond. D.C. Resistance at 20°C in Ohm/km Cu	Approx. Cond. A.C. Resistance at 70°C in Ohm/km Al	Approx. Cond. A.C. Resistance at 70°C in Ohm/km Cu	App..Reactance at 50HZ in ohms/km	App. Capecitance of cable in microF/KM	Normal* Current Rating in Amps With Aluminium cond. Ground	Duct	Air	With Copper cond. Ground	Duct	Air	Short Circuit Current Rating for 1Sec.duration in K. Amps Al	Cu
3X25+16	1.20	0.727	1.44	0.87	0.083	0.42	76	63	70	99	81	90	1.90	2.88
3X35+16	0.868	0.524	1.04	0.63	0.082	0.48	92	77	86	120	99	110	2.66	4.03
3X50+25	0.641	0.387	0.769	0.464	0.082	0.49	110	95	105	145	125	135	3.80	5.75
3X70+35	0.443	0.268	0.532	0.322	0.076	0.56	135	115	130	175	150	165	5.32	8.05
3X95+50	0.320	0.193	0.384	0.232	0.076	0.58	165	140	155	210	175	200	7.22	10.90
3X120+70	0.253	0.153	0.304	0.184	0.075	0.63	185	155	180	240	195	230	9.12	13.80
3X150+70	0.206	0.1240	0.247	0.1488	0.074	0.63	210	175	205	270	225	265	11.40	17.30
3X185+95	0.164	0.0991	0.197	0.1189	0.074	0.64	235	200	240	300	255	305	14.10	21.30
3X240+120	0.125	0.0754	0.151	0.0912	0.073	0.67	275	235	280	345	295	355	18.20	27.60
3X300+150	0.100	0.0601	0.122	0.0733	0.073	0.68	305	260	315	385	335	400	22.80	34.50
3X400+185	0.0778	0.0470	0.0961	0.0580	0.072	0.70	335	290	375	425	360	435	30.40	46.00
3X500+240	0.0605	0.0366	0.0759	0.0459	0.072	0.70	370	320	425	470	390	520	38.00	57.50
3X630+300	0.0469	0.0283	0.0610	0.0368	0.072	0.70	405	350	480	555	470	675	47.90	72.50

Note : Normal current ratings are given in standard conditions (as given in page no - 40,41), if site conditions are different, current rating should be multiplied by rating factor as given in page no. 42

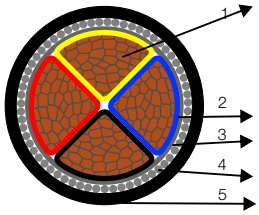
Table -10 TECHNICAL DETAIL FOR HAVELLS 1.1 KV FOUR CORE, AL/CUCOPPER COND., PVC INSULATED, GALVANIZED STEEL WIRE/STRIP ARMOURED CABLES

Cable Code : AYFY/ YFY, AYWY/ YWY — **Ref. Spec. : IS :1554PT -1**

Physical Parameters

SIZE Cross--sectional area (sqmm)	Minimum No of Strands in Conductor		Nominal Thickness of Insulation) (mm)	Minimum Thickness of inner Sh. (mm)	ARMOURING WITH FLAT STRIP (AYFY/ YFY)					ARMOURING WITH ROUND WIRES (AYWY/ YWY)				
					Nominal Thickness of armour (mm)	Minimum Thickness of outer sheath (mm)	Approx. Overall Diameter (mm)	Approx. Net Wt of cable (Kg/KM)		Nominal Diameter of armour (mm)	Minimum Thickness of outer sheath (mm)	Approx. Overall Diameter (mm)	Approx. Net Wt of cable (Kg/KM)	
								With Al cond	With Cu Cond.				With Al cond	With Cu Cond.
	Al	Cu						AYFY	YFY				AYWY	YWY
4	—	1/7	1.0	0.30	N/A	N/A	N/A	N/A	N/A	1.40	1.24	18	650	800
6	1	1/7	1.0	0.30	N/A	N/A	N/A	N/A	N/A	1.40	1.24	21	880	1030
10	1	6	1.0	0.30	0.8	1.40	21	750	998	1.60	1.40	22	900	1150
16	6	6	1.0	0.30	0.8	1.40	22	860	1260	1.60	1.40	23	1120	1520
25	6	6	1.2	0.30	0.8	1.40	25	1100	1720	1.60	1.40	27	1400	2020
35	6	6	1.2	0.30	0.8	1.40	28	1300	2170	1.60	1.56	30	1600	2470
50	6	6	1.4	0.40	0.8	1.56	32	1600	2850	2.00	1.56	34	2200	3445
70	12	12	1.4	0.40	0.8	1.56	35	2000	3740	2.00	1.56	37	2650	4390
95	15	15	1.6	0.40	0.8	1.72	40	2600	5000	2.00	1.72	42	3300	5660
120	15	18	1.6	0.50	0.8	1.88	43	3050	6030	2.00	1.88	47	3850	6830
150	15	18	1.8	0.50	0.8	1.88	48	3600	7325	2.5	2.04	51	4850	8575
185	30	30	2.0	0.60	0.8	2.04	52	4300	8890	2.5	2.20	56	5800	10390
240	30	34	2.2	0.60	0.8	2.36	59	5400	11355	2.50	2.36	62	7000	12960
300	30	34	2.4	0.70	0.8	2.52	67	6600	14050	3.15	2.68	70	9200	16650
400	53	53	2.6	0.70	0.8	2.84	74	8200	18128	3.15	2.84	76	11000	20930
500	53	53	3.0	0.70	0.8	3.00	80	10500	22900	4.00	3.00	86	15000	27400
630	53	53	3.4	0.70	0.8	3.00	90	13000	28625	4.00	3.00	96	18000	33630

Cross- Sectional View



1 CONDUCTOR : Material - Aluminium /Copper
*Shape : ~AL . Cond :- 6 & 10SQMM -Solid circular, 16sqmm & above : Stranded compacted shaped
~Copper . Cond :- 4 & 6sqmm -solid/ stranded non compacted circular , 10sqmm : Stranded compacted circular,16sqmm & above : Stranded compacted shaped
2 INSULATION : PVC Type A of IS :5831/ OPTION : HR PVC (Type -C of IS -5831), Colour : Red, Yellow, Blue, Black
3 INNER SHEATH : PVC as per IS :1554PT-1
4 ARMOURING : Single layer of Galvanized steel Round wires / Flat Strips
5 OUTER SHEATH : PVC TYPE ST-1 OF IS : 5831 '— OPTIONS : PVC TYPE ST-2 OF IS : 5831/ FR TYPE/ FRLS TYPE
COLOUR OF OUTER SHEATH : BLACK . OPTIONS : any other colour as per requirement.

~ Tabulated approx. net wt. of cables are only guidelines for transportation, loading &unloading purpose ..

~ Please ref page no 43 for normal delivery lengths & packing details.

Electrical Parameters

SIZE cross-sectional area (Sq MM)	Max. Cond. D.C. Resistance at 20°C in Ohm/km		Approx. Cond. A.C. Resistance at 70°C in Ohm/km		App.Reactance of cable at 50HZ in ohms/km	App. Capecitance of cable in micro F/KM	Normal* Current Rating in Amps						Short Circuit Current Rating for 1Sec.duration in K. Amps	
							With Aluminium cond.			With Copper cond.				
	Al	Cu	Al	Cu			Ground	Duct	Air	Ground	Duct	Air	Al	Cu
4	— —	4.61	— —	5.53	0.098	0.23	28	23	23	36	30	30	0.304	0.460
6	4.61	3.08	5.53	3.70	0.096	0.28	35	30	30	45	38	39	0.456	0.690
10	3.08	1.83	3.70	2.20	0.091	0.34	46	39	40	60	50	52	0.760	1.150
16	1.91	1.15	2.29	1.38	0.085	0.40	60	50	51	77	64	66	1.220	1.840
25	1.20	0.727	1.44	0.87	0.083	0.42	76	63	70	99	81	90	1.900	2.880
35	0.868	0.524	1.04	0.63	0.082	0.48	92	77	86	120	99	110	2.660	4.030
50	0.641	0.387	0.769	0.464	0.082	0.49	110	95	105	145	125	135	3.800	5.750
70	0.443	0.268	0.532	0.322	0.076	0.56	135	115	130	175	150	165	5.320	8.050
95	0.320	0.193	0.384	0.232	0.076	0.58	165	140	155	210	175	200	7.220	10.900
120	0.253	0.153	0.304	0.184	0.075	0.63	185	155	180	240	195	230	9.120	13.800
150	0.206	0.1240	0.247	0.1488	0.074	0.63	210	175	205	270	225	265	11.40	17.300
185	0.164	0.0991	0.197	0.1189	0.074	0.64	235	200	240	300	255	305	14.10	21.300
240	0.125	0.0754	0.151	0.0912	0.073	0.67	275	235	280	345	295	355	18.20	27.600
300	0.100	0.0601	0.122	0.0733	0.073	0.68	305	260	315	385	335	400	22.80	34.500
400	0.0778	0.0470	0.0961	0.0580	0.072	0.70	335	290	375	425	360	435	30.40	46.000
500	0.0605	0.0366	0.0759	0.0459	0.072	0.70	370	320	425	470	390	520	38.00	57.500
630	0.0469	0.0283	0.0610	0.0368	0.072	0.70	405	350	480	555	470	675	47.90	72.500

Note : Normal current ratings are given in standard conditions (as given in page no - 40,41), if site conditions are different, current rating should be multiplied by rating factor as given in page no. 42